

**BEFORE THE
PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2010-3-E**

In the Matter of
Annual Review of Base Rates
for Fuel Costs for
Duke Energy Carolinas, LLC

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**DIRECT TESTIMONY OF
JANE L. McMANEUS FOR DUKE
ENERGY CAROLINAS, LLC**

1 **Q. PLEASE STATE YOUR NAME, ADDRESS, AND POSITION.**

2 A. My name is Jane L. McManeus. My business address is 526 South Church Street,
3 Charlotte, North Carolina. I am Director, Rates for Duke Energy Carolinas, LLC
4 ("Duke Energy Carolinas" or the "Company").

5 **Q. WHAT ARE YOUR PRESENT RESPONSIBILITIES AT DUKE ENERGY**
6 **CAROLINAS?**

7 A. I am responsible for managing Duke Energy Carolinas' fuel recovery processes,
8 providing regulatory support for retail and wholesale rates, and providing guidance
9 on compliance with regulatory conditions and codes of conduct.

10 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
11 **PROFESSIONAL EXPERIENCE.**

12 A. I graduated from Wake Forest University with a Bachelor of Science in
13 Accountancy and received a Master of Business Administration degree from the
14 McColl Graduate School of Business at Queens University of Charlotte. I am a
15 certified public accountant licensed in the state of North Carolina and am a member
16 of the Southeastern Electric Exchange Rates and Regulation Section and the EEI
17 Rate and Regulatory Analysts group. I began my career with Duke Energy
18 Carolinas (formerly Duke Power Company) in 1979 as a staff accountant and have
19 held a variety of positions in the finance organizations. From 1994 until 1999, I
20 served in financial planning and analysis positions within the electric transmission
21 area of Duke Power. I was named Director, Asset Accounting for Duke Power in

1 1999 and appointed to Assistant Controller in 2001. As Assistant Controller I was
2 responsible for coordinating Duke Power's operational and strategic plans,
3 including development of the annual budget and performing special studies. I
4 joined the Rate Department in 2003 as Director, Rate Design and Analysis.
5 Beginning in April 2006, I became Director, Regulatory Accounting and Filings,
6 leading the regulatory accounting, cost of service, regulatory filings (including fuel)
7 and revenue analysis functions for Duke Energy Carolinas. I began my current
8 position in the Rate Department in October 2006.

9 **Q. ARE YOU FAMILIAR WITH THE ACCOUNTING PROCEDURES AND**
10 **BOOKS OF ACCOUNT OF DUKE ENERGY CAROLINAS?**

11 A. Yes. The books of account of Duke Energy Carolinas follow the uniform
12 classification of accounts prescribed by the Federal Energy Regulatory Commission
13 ("FERC").

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
15 **PROCEEDING?**

16 A. The purpose of my testimony is to provide the actual fuel and environmental cost
17 data for the period June 2009 through May 2010 (the "review period"), the period
18 under review in this proceeding; the projected fuel and environmental cost
19 information for the period June 2010 through September 2011 (the "forecast
20 period"); and the Company's recommended fuel factors by customer class for the
21 period October 2010 through September 2011 (the "billing period").

1 **Q. YOUR TESTIMONY INCLUDES NINE EXHIBITS. WERE THESE**
2 **EXHIBITS PREPARED BY YOU OR AT YOUR DIRECTION AND UNDER**
3 **YOUR SUPERVISION?**

4 A. Yes. Each of these exhibits was prepared at my direction and under my supervision.

5 **Q. PLEASE PROVIDE A DESCRIPTION OF THE EXHIBITS.**

6 A. The exhibits and descriptions are as follows:

7	Exhibit 1 -	Total Company Fuel Costs Detail for the Review Period
8	Exhibit 2 -	Coal Cost per MBTU Burned
9	Exhibit 3 -	Nuclear Cost per MBTU Burned
10	Exhibit 4 -	Source of Generation by Period
11	Exhibit 5 -	Actual and Estimated Fuel Costs and Revenues for June
12		2009 – September 2010
13	Exhibit 6 -	Projected Billing Period Fuel Costs for October 2010 –
14		September 2011
15	Exhibit 7 -	Actual and Estimated Environmental Cost and Revenues for
16		June 2009 – September 2010
17	Exhibit 8 -	Projected Billing Period Environmental Cost for October
18		2010 – September 2011
19	Exhibit 9 -	Projected Billing Period Fuel Factors by Customer Class

20 **Q. HOW DOES DUKE ENERGY CAROLINAS MEET ITS CUSTOMERS’**
21 **NEEDS FOR ELECTRICITY?**

22 A. Duke Energy Carolinas meets its customers’ needs for electricity through a
23 combination of Company-owned generation, purchases of power from others, and
24 customer demand-side options. Demand-side options include residential and non-
25 residential programs that provide credits to customers for allowing the Company to

1 curtail their electricity usage on occasion. Each day, Duke Energy Carolinas selects
2 the combination of Company-owned generating units and available power purchases
3 that will reliably meet customer needs in a least cost manner. Units with the lowest
4 overall operating costs (fuel, environmental and variable operations and
5 maintenance costs, etc.) are typically dispatched first, with higher cost units added
6 as load increases. Intraday adjustments are made to reflect changing conditions and
7 purchase opportunities. Company witness Pitesa discusses the nuclear fleet
8 operations and Company witness Roebel discusses fossil and hydroelectric
9 operations.

10 The Company also monitors the energy market, evaluating long-term,
11 seasonal, monthly, weekly, daily, and hourly purchase opportunities. In making
12 these daily decisions of which resources should be used to meet customer needs, the
13 Company may purchase energy from other suppliers, whether under long-term
14 capacity agreements that the Company has entered into or short-term spot market
15 purchases to ensure a selection of the most cost-effective, reliable solution.

16 Additionally, the Company has engaged in certain renewable energy
17 purchases and added renewable generation resources to its system generation supply
18 portfolio in order to comply with North Carolina law regarding renewable energy¹.

19 The pricing of renewable energy is discussed later in my testimony.

¹ N.C.G.S. § 62-133.8 (“Renewable Energy and Energy Efficiency Portfolio Standard”).

1 **Q. PLEASE DESCRIBE THE RELATIVE COSTS OF THE VARIOUS FUELS**
2 **USED BY DUKE ENERGY CAROLINAS FOR ITS GENERATING UNITS.**

3 A. Nuclear fuel is the least costly fuel for the Company with a cost of approximately
4 0.561 cents per kilowatt hour (“¢/kWh”). Coal costs are approximately 2.85 to 4.70
5 ¢/kWh depending on the generating plant. Although the costs of natural gas and
6 fuel oil on a cents per kWh basis are usually significantly higher, the fuel expense
7 for these fuels is small when compared to total fuel expense due to the limited need
8 to call on combustion turbine resources. The fuel cost of conventional hydroelectric
9 generation is essentially zero. The cost of pumped storage hydroelectric generation
10 is the fuel cost of the generating unit used to pump the water to the upper reservoir.
11 Hydroelectric operation is limited by the amount of rainfall and the amount of water
12 that can be drawn through the units in compliance with the Company’s operational
13 licenses. As discussed later, the cost of renewable purchases or owned renewable
14 generation is included in fuel clause calculations at the lower of actual fuel cost or
15 the Company’s avoided fuel cost.

16 **Q. HOW MUCH OF DUKE ENERGY CAROLINAS’ ENERGY CONSUMED**
17 **IN THE REVIEW PERIOD WAS GENERATED BY EACH TYPE OF**
18 **GENERATING UNIT?**

19 A. During the review period, the Company generated 81,493,444 megawatt hours
20 (“MWHs”) of electricity². The fossil units provided 46% of Duke Energy
21 Carolinas’ total generation, the nuclear units provided 52%, and the hydroelectric

² Reflects the Company’s partial ownership share of Catawba Nuclear Station.

1 system (net of megawatt-hours used for pumped storage) and solar distributed
2 generation combined to provide 2% of the total generation.

3 **Q. PLEASE DESCRIBE HOW DUKE ENERGY CAROLINAS INCLUDED**
4 **FUEL COSTS RELATED TO POWER PURCHASES IN ITS FUEL**
5 **EXPENSES FOR THE REVIEW PERIOD.**

6 A. The definition of fuel costs related to purchased power set forth in § 58-27-865(A)
7 of the 1976 Code of Laws of South Carolina (“S.C. Code Ann.”) includes the “costs
8 of ‘firm generation capacity purchases’, which are defined as purchases made to
9 cure a capacity deficiency or to maintain adequate reserve levels” and “the total
10 delivered cost of economy purchases of electric power.” The statute further defines
11 economy purchases as purchases “made to displace higher cost generation, at a price
12 which is less than the purchasing utility’s avoided variable costs for the generation
13 of an equivalent quantity of electric power.”

14 In accordance with the statute, the Company used the avoided cost method
15 to determine the fuel component of purchases of power for Duke Energy Carolinas’
16 retail customers. Under this methodology, the Company determines the costs it
17 would have incurred in the absence of the purchase. This cost is determined by use
18 of a model that identifies the incremental cost of the unit that would have been
19 dispatched in the absence of the purchase and compares that cost to the cost of the
20 purchase. The incremental cost includes the fuel and certain variable operation and
21 maintenance costs. The Company includes in fuel costs the lower of the cost of the
22 energy purchase or the cost that Duke Energy Carolinas would have incurred. Duke

1 Energy Carolinas' customers thereby are ensured of receiving the benefit of
2 purchased power.

3 Duke Energy Carolinas operates a portfolio of generating plants located in
4 both South Carolina and North Carolina in order to supply the energy requirements
5 of its firm native load customers in its service area. As such, it is necessary for the
6 Company to make purchases of renewable energy in order to comply with North
7 Carolina law related to renewable energy.

8 **Q. PLEASE DESCRIBE HOW NUCLEAR COSTS ARE INCLUDED IN THE**
9 **COMPANY'S FUEL EXPENSES.**

10 A. The cost of each fuel assembly is determined when the fuel is loaded in the reactor.
11 The costs include yellowcake (uranium), conversion, enrichment, and fabrication.
12 In his testimony, Company witness Geer describes the components that make up
13 nuclear fuel in greater detail. An estimate of the energy content of each fuel
14 assembly is also made. Nuclear fuel expenses for each month are based on the
15 energy output in units of million BTUs ("MBTUs") of each fuel assembly in the
16 core. A cost per MBTU is determined by dividing the cost of the assembly by its
17 expected energy output. Each month a calculation of the MBTU output of an
18 assembly is priced at its cost per MBTU. During the life of a fuel assembly, the
19 expected energy output may change as a result of actual plant operations. When this
20 occurs, changes are made in the cost per MBTU for the remaining energy output of
21 the assembly. In addition the monthly costs include the Department of Energy's
22 'High Level Waste' fee.

1 **Q. CAN YOU EXPLAIN HOW COAL COSTS ARE INCLUDED IN THE**
2 **COMPANY’S FUEL EXPENSES?**

3 A. Duke Energy Carolinas calculates coal costs charged to fuel expense on an
4 individual plant basis. The expense charge is the product of the tons of coal
5 conveyed to the bunkers for a generating unit during the month multiplied by the
6 average cost of the coal, adjusting for the inventory remaining in the bunkers at the
7 close of the month. The number of tons is determined by using scales located on the
8 conveyor belt running to the unit’s coal bunkers and the measurement of bunker
9 inventories at the close of each month. The average cost reflects the total cost of
10 coal on hand as of the beginning of the month, computed using the moving average
11 inventory method, plus the cost of coal delivered to the plant during the month.
12 Duke Energy Carolinas determines the cost of coal based upon the invoice for the
13 coal and associated freight charges, and does not include any non-fuel cost or coal
14 handling cost at the generating station.

15 Duke Energy Carolinas conducts annual physical inventories of coal piles
16 through aerial surveys. The Company made an adjustment to book inventory and
17 fuel expense in December 2009 based on the results of the annual inventory. The
18 Company also conducts annual physical inventories of limestone. Adjustments
19 were made to book inventory and reagent expense in first quarter 2010 based on the
20 results of the physical inventory.

1 **Q. WHAT DOES MCMANEUS EXHIBIT 1 SHOW?**

2 A. McManeus Exhibit 1 sets forth the total system actual fuel costs (as burned) that the
3 Company incurred from June 2009 through May 2010. This exhibit also shows fuel
4 costs by type of generation and total MWHs generated during this period. The
5 monthly fluctuations in total fuel cost during this period are primarily due to
6 refueling and other outages at the nuclear stations, weather sensitive sales, and the
7 availability of hydroelectric generation.

8 **Q. WHAT IS THE MAGNITUDE OF THE COMPANY'S FUEL COST**
9 **COMPARED TO THE TOTAL COST OF SERVICE?**

10 A. Fuel costs continue to be the largest cost item Duke Energy Carolinas incurs in
11 providing electric service. For the twelve months ended May 2010, fuel and the fuel
12 component of purchased power represented approximately 28% of the Company's
13 total revenue. Of fuel costs, coal costs are the largest component, and comprised
14 approximately 84% of the costs of the Company's fuel burned during the review
15 period.

16 **Q. WHAT CHANGES HAVE OCCURRED IN THE UNIT COST OF FUEL**
17 **DURING RECENT REPORTING PERIODS?**

18 A. McManeus Exhibits 2 and 3 graphically portray the "as burned" cost of coal and
19 nuclear fuel respectively in cents per MBTU for the twelve-month periods ending
20 each month from May 2008 through May 2010. As McManeus Exhibit 2 shows,
21 coal costs increased during the period as testified to by Company witness Batson.
22 The decrease in December 2009 reflects the adjustment to fuel expense related to

1 the aerial survey results. McManeus Exhibit 3 shows that nuclear fuel costs have
2 also increased over the same period. Company witness Geer discusses changes in
3 the cost of the various components of nuclear fuel in his testimony. The costs
4 incurred by Duke Energy Carolinas for the other fossil fuels used by the Company,
5 natural gas, fuel oil, and biomass product, are a very small percentage of the total
6 fuel costs. The costs incurred during the review period for these fuels were
7 approximately \$24 million, or 2% of the Company's total fuel burned.

8 As testified to by Company witness Batson, the delivered cost of coal
9 increased during the review period by 4% as compared to June 2008 through May
10 2009 (the "prior review period"). However, the Company's average mine cost of
11 coal compares favorably to the Central Appalachia market prices during the same
12 periods. As discussed in greater detail by Company witness Geer in his testimony,
13 the market prices for the components of nuclear fuel have increased due to
14 expirations of some long-term contracts that were replaced with contracts at higher
15 market prices. Natural gas costs decreased 230% during the period and fuel oil
16 costs decreased by 5%. Because natural gas and fuel oil make up only a small
17 percentage of the Company's portfolio, the impact of these changes were not
18 significant.

19 **Q. WHAT DOES MCMANEUS EXHIBIT 4 SHOW?**

20 A. McManeus Exhibit 4 graphically shows generation by type for the prior, current,
21 and projected billing periods. As the exhibit demonstrates, nuclear and fossil fuel
22 account for 98-100% of the Company's total generation.

1 **Q. DO YOU BELIEVE THE COMPANY'S ACTUAL FUEL COSTS**
2 **INCURRED DURING THE PERIOD JUNE 2009 THROUGH MAY 2010**
3 **WERE REASONABLE?**

4 A. Yes. I believe the costs are reasonable and that Duke Energy Carolinas has
5 demonstrated that it meets the criteria set forth in S.C. Code Ann. § 58-27-865(F).
6 These costs also reflect the Company's continuing efforts to maintain reliable
7 service and an economical generation mix, thereby minimizing the total cost of
8 providing service to the Company's South Carolina retail customers.

9 **Q. HOW DID THE COMPANY CALCULATE ITS FUEL COST RECOVERY**
10 **DURING THE JUNE 2009 THROUGH SEPTEMBER 2010 TIME PERIOD?**

11 A. McManeus Exhibit 5 shows the actual fuel costs incurred for the period June 2009
12 through May 2010 and the estimated fuel costs for June 2010 through September
13 2011. This exhibit compares the fuel costs incurred with the revenues collected
14 applying the applicable fuel cost component of 1.9606 ¢/kWh for the period
15 October 2009 through September 2010.

16 **Q. WHAT IS THE BASIS FOR ESTIMATING FUEL COSTS AS SHOWN ON**
17 **MCMANEUS EXHIBITS 5 AND 6?**

18 A. Duke Energy Carolinas developed the projections shown on McManeus Exhibits 5
19 and 6 based on the latest information available to the Company. The projected kWh
20 sales are from the Company's spring 2010 sales forecast. Projected nuclear
21 generation reflects planned outages, which include refueling outages at six (6) units
22 including one (1) that extends beyond the forecast period. The projection of fuel

1 costs are based on a 97% capacity factor for the nuclear units while they are running.
2 The Company's most recent nuclear fuel cost estimate was used to determine
3 projected nuclear fuel expense. For the projected period June 2010 through
4 September 2011, conventional hydroelectric generation was based on the
5 Company's historical median hydro generation for the period 1979 through 2009.
6 Pumped storage hydroelectric generation was based on a five (5) year average
7 period of pumped storage operation at Jocassee and Bad Creek. The Company
8 estimates fuel costs of energy purchases based on historical purchase quantities and
9 price. Oil and gas fuel costs and generation are based on a three (3) year average.
10 Renewable generation and purchases reflect the Company's forecast of amounts to
11 be generated or acquired during the billing period and are priced at the lesser of
12 actual fuel cost or avoided fuel costs. The Company assumes that the remainder of
13 customers' energy needs is served from coal-fired units. The projected price for
14 coal contracts is based on the price of coal contracts that will be in place during the
15 projection period along with the current market price for any coal needs beyond the
16 currently contracted amounts.

17 **Q. HOW DO INTERSYSTEM SALES OF POWER AFFECT THE**
18 **CALCULATION OF FUEL COSTS INCURRED AND THE PROJECTED**
19 **FUEL FACTOR FOR SOUTH CAROLINA RETAIL CUSTOMERS?**

20 A. The review period fuel costs incurred are calculated by subtracting the fuel costs
21 associated with non-firm intersystem sales from the total system burned fuel cost.
22 To determine the fuel costs associated with these intersystem sales, Duke Energy

1 Carolinas uses a post dispatch model to stack the sources of generation used in each
2 hour from least to highest total cost, and in order to hold retail customers harmless,
3 typically assigns the highest cost generating units on an incremental basis to non-
4 firm intersystem sales of power. The projected fuel factor is set based on an
5 assumed amount and cost of intersystem sales. The amount of non-firm intersystem
6 sales for the projected fuel factor is based on actual data. However, the costs of
7 projected sales are adjusted from the review period costs by the same percentage
8 change as between the review period and projected period cost per kWh of coal,
9 since higher priced coal generation is typically assigned to intersystem sales.

10 **Q. HOW DO RENEWABLE GENERATION AND PURCHASES AFFECT THE**
11 **PROPOSED FUEL RATE?**

12 A. Duke Energy Carolinas operates a portfolio of generating plants located in both
13 South Carolina and North Carolina in order to supply the energy requirements of its
14 firm native load customers in its service area. In addition, the Company makes
15 purchases of power when economic, or when needed for reliability, to supplement
16 its generation supply resources. During the billing period, the Company expects to
17 generate and purchase renewable energy to comply with North Carolina's
18 Renewable Energy and Energy Efficiency Portfolio Standard. The proposed fuel
19 factors include renewable energy generated by the Company or purchased from third
20 party suppliers priced at the Company's avoided fuel cost of 4.91 ¢/kWh when there

1 is no actual fuel cost incurred.³ The use of avoided fuel costs results in neither
2 advantaging nor disadvantaging South Carolina retail customers with respect to
3 Duke Energy Carolinas' requirement to supply a portion of its North Carolina retail
4 sales from renewable energy resources. In the case of co-firing using biomass
5 product, the cost included in fuel clause recovery is the lesser of the actual fuel cost
6 or the avoided fuel cost.

7 **Q. WHAT DOES THE COMPANY ANTICIPATE ITS FUEL RECOVERY**
8 **POSITION WILL BE AS OF SEPTEMBER 30, 2010?**

9 A. Duke Energy Carolinas estimates that by the end of the current billing period
10 (September 30, 2010), the Company will be over-recovered in South Carolina by
11 \$33.6 million with respect to fuel costs and over-recovered by \$0.8 million with
12 respect to environmental cost, for a total estimated over-recovery of \$34.4 million.
13 To compare to the prior period, the current fuel factor includes a component related
14 to an over-recovery balance of \$45.0 million.

15 **Q. WHAT IS THE FUEL COST COMPONENT OF THE FUEL FACTORS**
16 **THE COMPANY PROPOSES FOR THE BILLING PERIOD OCTOBER**
17 **2010 THROUGH SEPTEMBER 2011?**

18 A. McManeus Exhibit 6 sets forth projected fuel costs for the period October 2010
19 through September 2011. As shown on line 9, the fuel cost component estimated
20 for recovery during this period is 2.2268 ¢/kWh. After adjusting for the cumulative

³ The avoided fuel rate of 4.91 ¢/kWh is the annualized avoided fuel rate component of the Schedule PP rates approved by the Commission in its Order No. 2009-43 in Docket 1995-1192-E, on June 25, 2009.

1 over-recovery, the adjusted fuel cost component is 2.0625 ¢/kWh. Therefore, each
2 of the three fuel factors proposed by the Company for Commission approval
3 includes a fuel cost component of 2.0625 ¢/kWh. The primary drivers of the
4 proposed increase in the fuel component are higher coal transportation costs, higher
5 nuclear fuel costs, and a decrease in the amount of prior period fuel cost over-
6 recovery being returned to customers.

7 **Q. HOW DOES DUKE ENERGY CAROLINAS REFLECT VARIABLE**
8 **ENVIRONMENTAL COSTS IN ITS FUEL FACTORS?**

9 A. Pursuant to S.C. Code Ann. § 58-27-865(A)(1), the Company calculates an
10 environmental component for each of the Residential, General Service/Lighting, and
11 Industrial customer classes based upon the (1) over- or under-recovery of actual
12 costs incurred for emission allowances and reagent costs permitted under that statute
13 (“environmental costs”) for the period June 2009 through May 2010, (2) estimated
14 over- or under-recovery of environmental costs for the period June 2010 through
15 September 2010, and (3) projected environmental costs for the period October 2010
16 through September 2011. The over/under-recovery of environmental costs incurred
17 and projected environmental costs are then allocated among the three customer
18 classes based upon firm peak load for the appropriate period. The resulting
19 allocated costs are converted to the environmental component for each class
20 expressed in ¢/kWh. Each environmental component is then added to the fuel
21 component proposed above resulting in a total fuel factor for each class.

1 **Q. PLEASE EXPLAIN HOW THE COMPANY DETERMINED THE FIRM**
2 **PEAK DEMAND FOR EACH CUSTOMER CLASS AND DEVELOPED**
3 **THE ALLOCATION FACTORS FOR ENVIRONMENTAL COSTS.**

4 A. The demands of South Carolina retail customers by customer class at the time of
5 Duke Energy Carolinas' summer peak were adjusted by subtracting the amount of
6 class demand for each customer class that is subject to interruption under the
7 Company's approved demand-response programs, but not interrupted at the time of
8 peak, in order to determine the firm demand. The firm demand for each class was
9 then converted to a percentage of the total firm demand. The firm demand
10 allocators are set forth on McManeus Exhibits 7 and 8. These percentages were
11 used to allocate the environmental costs between the Residential, General
12 Service/Lighting, and Industrial customer classes.

13 **Q. HOW DID THE COMPANY CALCULATE ITS ENVIRONMENTAL COST**
14 **RECOVERY DURING THE JUNE 2009 THROUGH SEPTEMBER 2010**
15 **TIME PERIOD?**

16 A. McManeus Exhibit 7 shows the actual environmental costs incurred for the period
17 June 2009 through May 2010 and the estimated environmental costs for June 2010
18 through September 2010. The exhibit compares the environmental costs incurred
19 with the revenue collected, applying the environmental cost components of 0.0046
20 ¢/kWh, 0.0052 ¢/kWh, and 0.0023 ¢/kWh for the Residential, General
21 Service/Lighting, and Industrial classes respectively for the period October 2009

1 through September 2010. Actual costs are allocated among customer classes using
2 the 2008 firm peak demand on which the billed rates were established.

3 **Q. WHAT IS THE BASIS FOR ESTIMATING ENVIRONMENTAL COSTS AS**
4 **SHOWN ON MCMANEUS EXHIBITS 7 AND 8?**

5 A. As discussed by Company witnesses Roebel and Batson, the projected reagent costs
6 and gains or losses on the sale of emissions allowances are based upon the most
7 current forecasts produced by appropriate departments within the Company. The
8 Company estimates emission allowance expense and environmental expenses
9 recovered in non-firm intersystem sales based on actual data.

10 **Q. WHAT ARE THE ENVIRONMENTAL COST COMPONENTS THE**
11 **COMPANY PROPOSES FOR THE BILLING PERIOD OCTOBER 2010**
12 **THROUGH SEPTEMBER 2011?**

13 A. McManeus Exhibit 8 sets forth projected environmental costs for the period October
14 2010 through September 2011. As shown on McManeus Exhibit 8, the proposed
15 environmental cost components for recovery during this period are 0.0491 ¢/kWh
16 for Residential customers, 0.0379 ¢/kWh for General Service/Lighting customers,
17 and 0.0276 ¢/kWh for Industrial customers. Projected environmental costs are
18 allocated among customer classes using the 2009 firm peak demand.

19 **Q. WHAT IS THE COMBINED COST OF FUEL THE COMPANY PROJECTS**
20 **FOR RECOVERY DURING THE PERIOD OCTOBER 2010 THROUGH**
21 **SEPTEMBER 2011?**

22 A. As shown in McManeus Exhibit 9, the fuel cost component (as computed on

1 McManeus Exhibit 6) is 2.0625 ¢/kWh for all customer classes. The environmental
2 cost components (as computed on McManeus Exhibits 7 and 8) are 0.0445 ¢/kWh
3 for Residential customers, 0.0327 ¢/kWh for General Service/Lighting customers,
4 and 0.0253 ¢/kWh for Industrial customers. The combined fuel factors estimated
5 for recovery during this period are 2.1070 ¢/kWh for Residential customers, 2.0952
6 ¢/kWh for General Service/Lighting customers, and 2.0878 ¢/kWh for Industrial
7 customers. The Company seeks Commission approval for these proposed combined
8 fuel factors. Based on the Company's estimate, the proposed combined fuel factors
9 would result in the Company being neither under- nor over-recovered in its fuel
10 costs, including environmental costs, at the end of the billing period in September
11 2011.

12 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

13 **A. Yes, it does.**

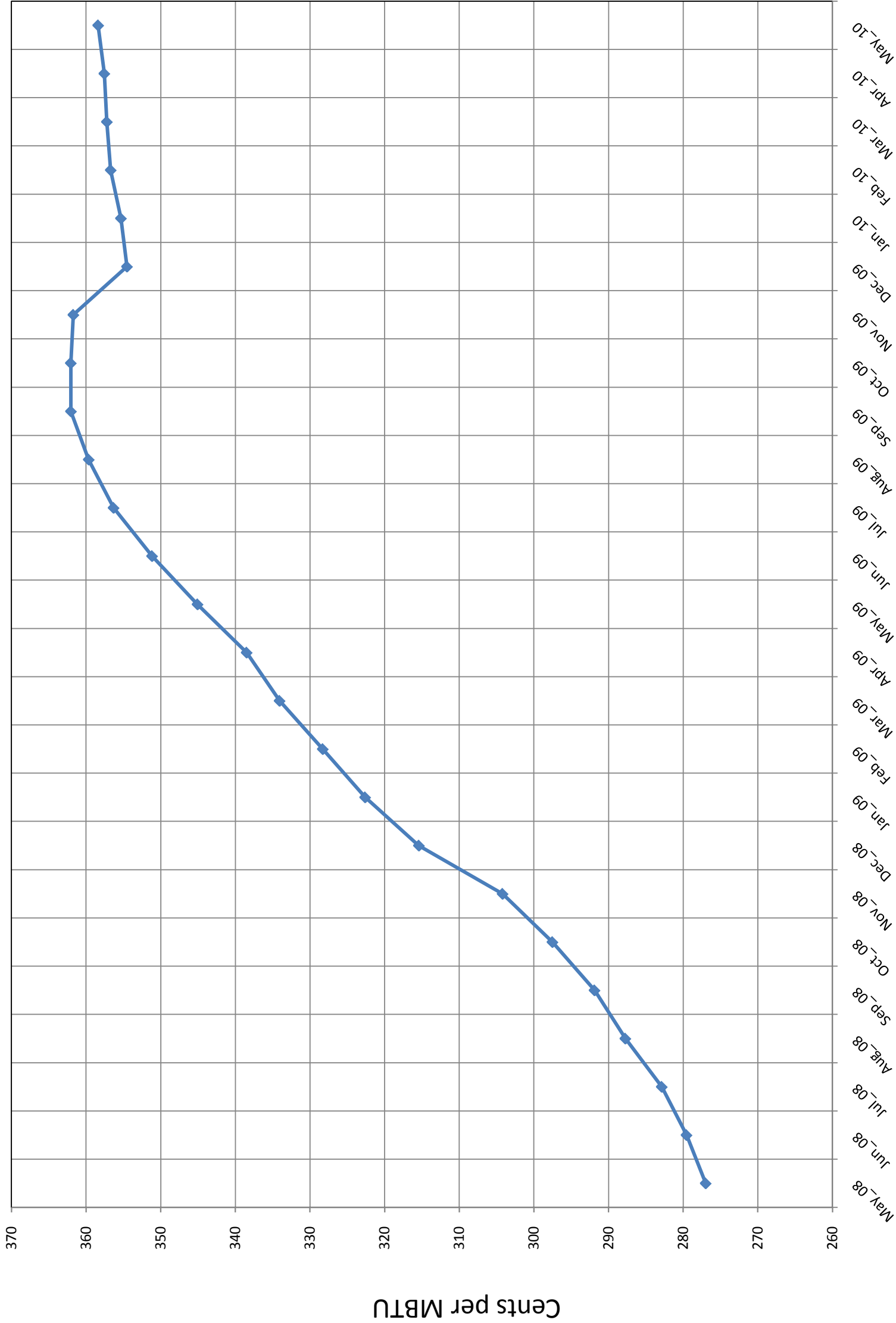
TOTAL COMPANY FUEL AND FUEL RELATED COSTS FOR REVIEW PERIOD (JUNE 2009 - MAY 2010)
\$000

Line No.	Description	12Mo. 5/09	Actual June 2009	Actual July 2009	Actual Aug. 2009	Actual Sept. 2009	Actual Oct. 2009	Actual Nov. 2009	Actual Dec. 2009	Actual Jan 2010	Actual Feb. 2010	Actual March 2010	Actual April 2010	Actual May 2010	12 Month Total
1	Coal	\$1,318,517	\$113,544	\$116,033	\$133,537	\$95,742	\$85,895	\$95,722	\$100,949	\$143,633	\$121,875	\$89,110	\$79,995	\$110,064	\$1,286,098
2	Biomass/Test Fuel		-	8	62	55	(6)	-	6	14	-	-	-	89	228
3	Environmental	11,933	459	757	(2,466)	(1,643)	642	744	3,323	1,655	45	2,416	1,238	1,684	8,854
4	Oil	16,920	1,511	934	905	903	729	877	1,304	2,136	2,851	859	1,115	2,121	16,245
5	Gas	45,082	725	378	1,314	2,926	(841)	75	111	255	242	16	85	2,617	7,903
6	Nuclear	193,427	18,378	18,357	18,065	14,498	15,557	15,122	18,801	19,441	17,318	16,609	14,750	16,599	203,495
7	Solar DG		0	0	0	0	0	0	0	0	0	19	20	31	70
8	Total	\$1,585,879	134,616	\$136,468	\$151,417	\$112,480	\$101,975	\$112,540	\$124,493	\$167,134	\$142,331	\$109,028	\$97,204	\$133,205	\$1,522,891
9	MWH Generation	98,259,324	7,105,134	7,316,807	7,698,160	5,768,698	5,643,490	5,903,392	7,422,372	7,970,626	6,960,545	6,039,628	5,299,600	6,481,707	79,610,159

DUKE ENERGY CAROLINAS
SOUTH CAROLINA FUEL CLAUSE
ANNUAL FUEL FILING - Docket 2010-3-E

COAL COST PER MBTU BURNED

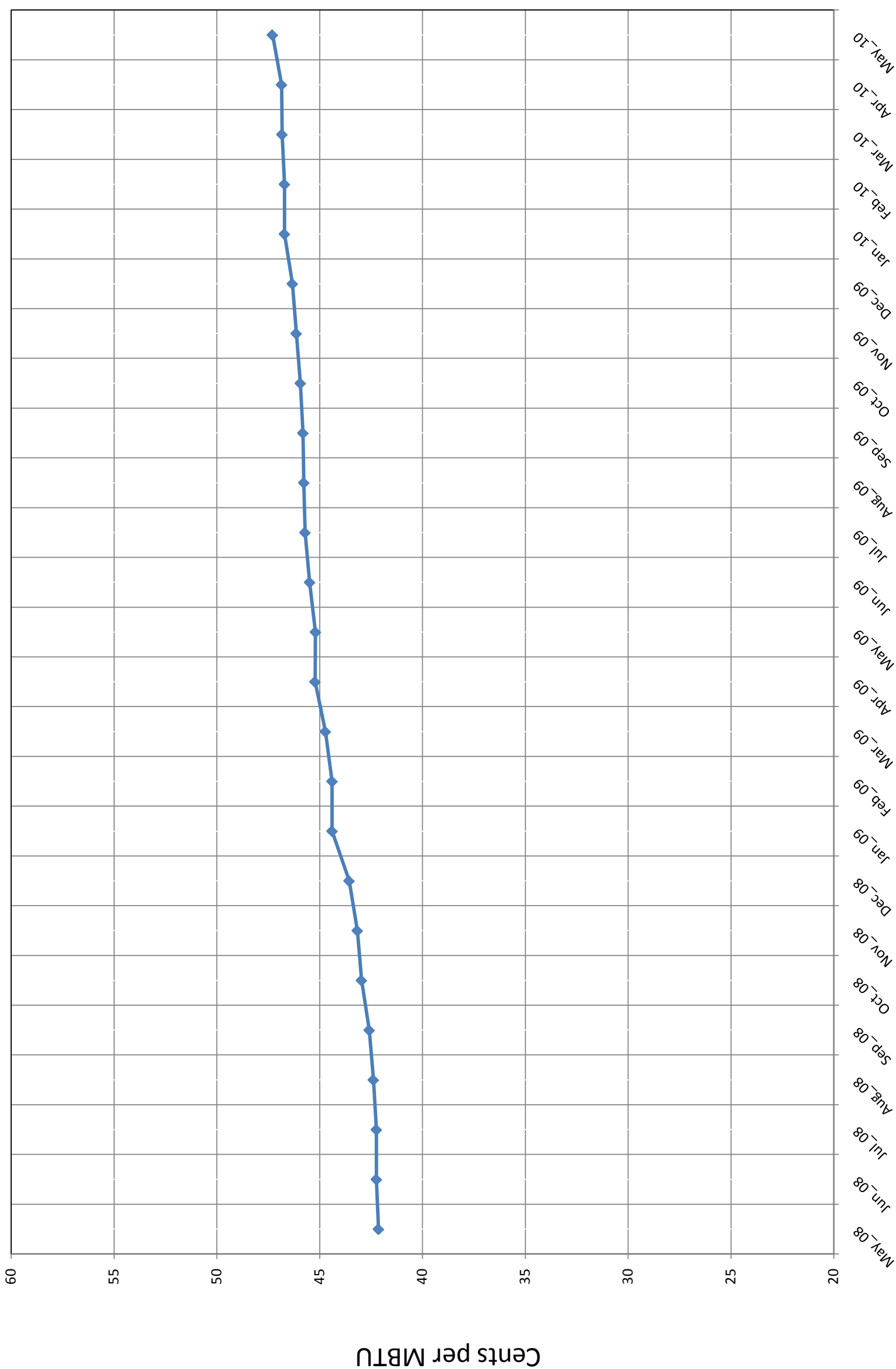
Cents per MBTU Burned - Coal



Twelve month ended value for each month

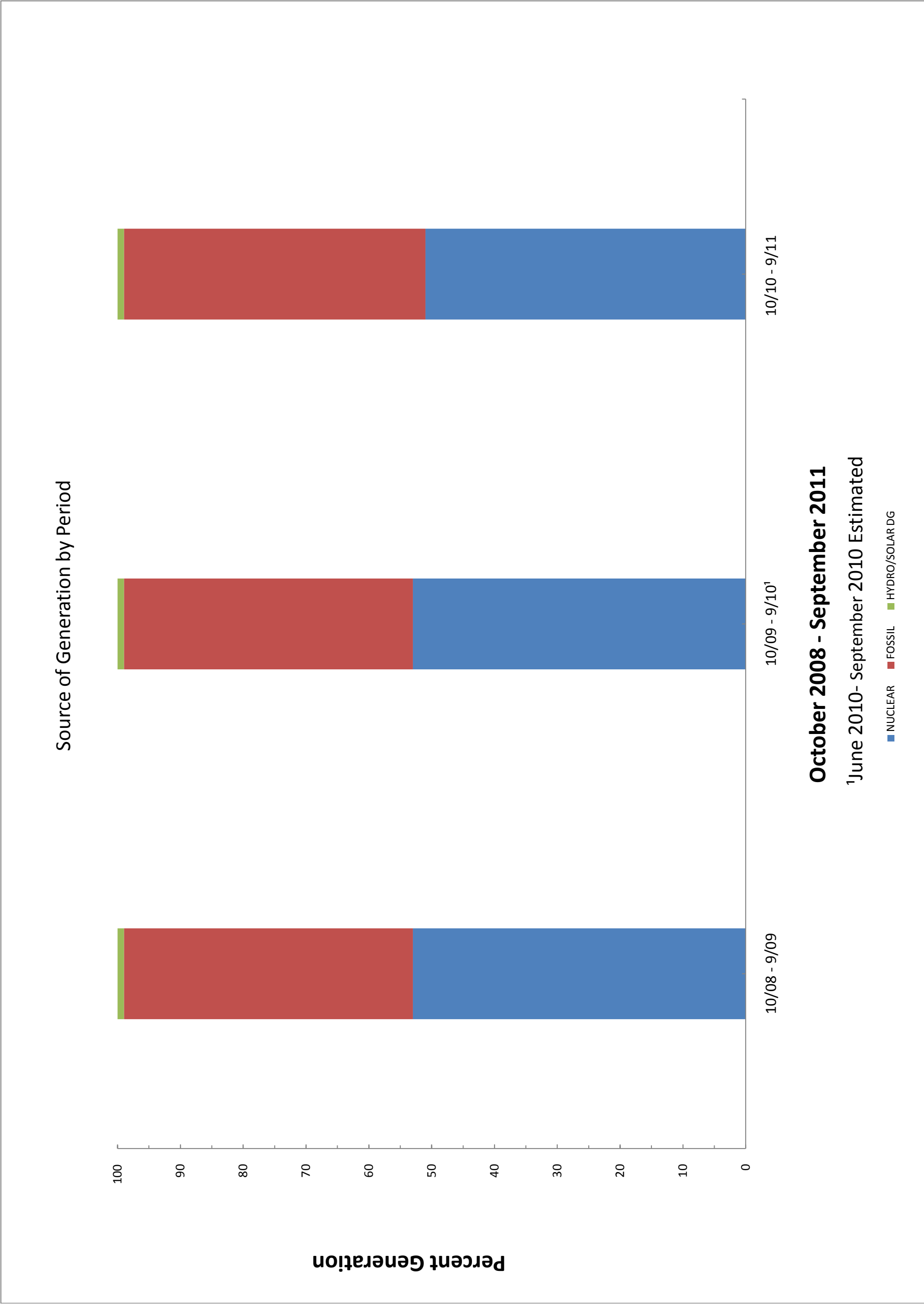
NUCLEAR COST PER MBTU BURNED

Cents per MBTU Burned - Nuclear



Twelve month ended value for each month

SOURCE OF GENERATION BY PERIOD



ACTUAL AND ESTIMATED FUEL COSTS AND REVENUES FOR JUNE 2009 - SEPTEMBER 2010

\$000

Line No.	Item	Actual June 2009	Actual July 2009	Actual Aug. 2009	Actual Sept. 2009	Actual Oct. 2009	Actual Nov. 2009	Actual Dec. 2009	Actual Jan 2010	Actual Feb. 2010	Actual March 2010	Actual April 2010	Actual May 2010	Estimate June 2010	Estimate July 2010	Estimate Aug. 2010	Estimate Sept. 2010
1	Fossil Fuel	\$115,779	\$117,346	\$135,756	\$99,571	\$85,782	\$96,675	\$102,363	\$146,024	\$124,968	\$89,985	\$81,195	\$114,802	\$116,094	\$132,558	\$145,124	\$122,240
2	Nuclear Fuel	18,378	18,357	18,065	14,498	15,557	15,122	18,801	19,441	17,318	16,609	14,750	16,599	19,091	19,744	19,744	18,772
3	Solar Distribution Generation	0	0	0	0	0	0	0	0	0	19	20	31	33	33	33	47
4	Renewable Purch Pwr	98	252	101	106	103	92	101	200	217	335	333	311	381	389	388	383
5	Fuel In Purchases	10,150	9,285	11,479	17,644	12,571	7,854	8,049	4,934	7,340	10,514	13,960	14,297	7,947	8,500	8,192	20,941
6	Fuel In Intersystem Sales	2,973	878	1,541	558	1,224	661	7,022	12,248	6,198	1,056	785	2,041	3,130	1,749	567	593
7	Total Costs	\$141,432	\$144,361	\$163,861	\$131,261	\$112,789	\$119,082	\$122,292	\$158,351	\$143,645	\$116,405	\$109,474	\$143,999	\$140,416	\$159,475	\$172,914	\$161,790
8	MWH Sales	6,562,007	7,315,119	7,444,889	6,999,084	5,896,993	5,671,992	6,651,098	7,787,861	6,981,645	6,667,326	6,140,948	5,810,560	6,590,391	7,158,799	7,484,548	7,179,289
9	Fuel Cost c/KWH	2,1553	1,9735	2,2010	1,8754	1,9127	2,0995	1,8387	2,0333	2,0575	1,7459	1,7827	2,4782	2,1306	2,2277	2,3103	2,2536
10	c/KWH Billed	2,2317	2,2317	2,2317	2,2317	1,9606	1,9606	1,9606	1,9606	1,9606	1,9606	1,9606	1,9606	1,9606	1,9606	1,9606	1,9606
11	SC Retail MWH Sales	1,729,945	1,880,043	1,911,611	1,792,320	1,543,698	1,463,698	1,664,530	1,927,383	1,749,818	1,697,366	1,611,533	1,508,902	1,745,362	1,852,108	1,944,499	1,878,771
12	\$ (Over) Under	(1,322)	(4,854)	(587)	(6,386)	(739)	2,033	(2,029)	1,401	1,696	(3,644)	(2,867)	7,810	2,967	4,947	6,800	5,505
13	Prior Period (Over)/Under	(\$44,315)															
14	Economic Purchase Adjustment per Docket 2010-3-E																
15	Cumulative (Over)/Under	-\$45,637	-\$50,491	-\$51,078	-\$57,464	-\$58,203	-\$56,170	-\$58,199	-\$56,798	-\$55,102	-\$58,746	-\$61,613	-\$53,803	-\$50,836	-\$45,889	-\$39,089	-\$33,584

PROJECTED BILLING PERIOD FUEL COST FOR OCTOBER 2010 - SEPTEMBER 2011

\$000

Line No.	Item	Oct. 2010	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011	Apr. 2011	May 2011	June 2011	July 2011	Aug. 2011	Sept. 2011	12 Month Total
1	Fossil Fuel	\$91,008	\$107,339	\$117,389	\$139,905	\$140,194	\$105,988	\$102,399	\$97,707	\$121,469	\$137,891	\$152,461	\$137,016	\$1,450,764
2	Nuclear Fuel	18,463	16,925	19,744	21,351	19,282	17,574	16,965	18,677	20,320	21,351	21,351	18,792	230,795
3	Solar Distribution Generation	44	38	32	37	42	60	68	71	71	68	65	55	650
4	Renewable Purch Pwr _/1	479	471	820	893	895	914	917	922	937	981	977	962	10,169
5	Purchased Power _/2	11,798	1,206	2,927	3,881	3,871	11,072	13,087	9,332	8,068	8,684	8,420	21,384	103,730
6	Fuel In Intersystem Sales	3,540	226	8,225	10,411	5,145	1,594	775	1,845	3,178	1,787	583	606	37,915
7	Total Fuel Costs	\$118,251	\$125,753	\$132,687	\$155,657	\$159,139	\$134,013	\$132,660	\$124,863	\$147,687	\$167,189	\$182,691	\$177,603	\$1,758,193
8	Total MWH Sales	5,916,654	5,768,870	6,473,292	7,086,570	6,824,166	6,072,444	5,908,893	5,876,160	6,690,834	7,313,380	7,692,819	7,330,984	78,955,065
9	Fuel Costs Incurred c/kwh	1.9986	2.1798	2.0498	2.1965	2.3320	2.2069	2.2451	2.1249	2.2073	2.2861	2.3748	2.4226	2.2268
10	SC Retail MWH Sales	1,559,288	1,525,264	1,665,850	1,780,050	1,750,638	1,549,442	1,554,172	1,544,172	1,756,444	1,871,158	1,976,511	1,904,217	20,437,204
11	SC Fuel Costs	\$31,164	\$33,248	\$34,147	\$39,099	\$40,825	\$34,195	\$34,893	\$32,812	\$38,770	\$42,777	\$46,938	\$46,132	\$455,096
12	(Over)/Under on Exhibit 5													(\$33,584)
13	SC Fuel Costs													\$421,512
14	SC Fuel Cost c/kwh													2.0625

_/1 Renewable Purchased Power dollars are based on avoided fuel cost rate.

_/2 Purchased Power costs include fuel costs plus non-fuel component of economic purchases.

ACTUAL AND ESTIMATED ENVIRONMENTAL COST AND REVENUES FOR JUNE 2009 - SEPTEMBER 2010
\$000

Line No.		Actual June 2009	Actual July 2009	Actual Aug. 2009	Actual Sept. 2009	Actual Oct. 2009	Actual Nov. 2009	Actual Dec. 2009	Actual Jan 2010	Actual Feb. 2010	Actual March 2010	Actual April 2010	Actual May 2010	Estimate June 2010	Estimate July 2010	Estimate Aug. 2010	Estimate Sept. 2010	16 Month Total
1	SC Environmental Costs	\$109	\$191	(\$638)	(\$424)	\$161	\$188	\$777	\$356	(\$10)	\$612	\$322	\$434	\$667	\$732	\$773	\$636	\$4,886
	SC Environmental Costs Billed																	
2	(Increment/(Decrement))	\$275	\$317	\$314	\$291	\$72	\$67	\$77	\$90	\$81	\$79	\$75	\$70	\$82	\$87	\$92	\$88	\$2,157
	SC Environmental Costs																	
3	(Over)/Under Recovery	(\$166)	(126)	(\$952)	(\$715)	\$89	\$121	\$700	\$266	(\$91)	\$533	\$247	\$364	\$585	\$645	\$681	\$548	\$2,729
4	Prior Period (Over)/Under Recovery	(\$3,515)																
	Economic Purchase Adjustment																	
5	per Docket 2009-3-E																	
	Cummulative SC Environmental																	
6	Costs (Over)/Under Recovery	(\$3,681)	(\$3,807)	(\$4,759)	(\$5,474)	(\$5,385)	(\$5,264)	(\$4,564)	(\$4,298)	(\$4,389)	(\$3,856)	(\$3,609)	(\$3,245)	(\$2,660)	(\$2,015)	(\$1,334)	(\$786)	
	SC Environmental Costs Cumulative (Over)/Under Recovery Allocated on Firm CP KWs																	
7	Residential	(\$1,471)	(\$1,545)	(\$1,943)	(\$2,237)	(\$2,193)	(\$2,136)	(\$1,853)	(\$1,749)	(\$1,784)	(\$1,568)	(\$1,461)	(\$1,307)	(\$1,066)	(\$804)	(\$527)	(\$303)	
8	General/Lighting	(1,144)	(1,189)	(1,485)	(1,712)	(1,689)	(1,655)	(1,441)	(1,359)	(1,388)	(1,225)	(1,152)	(1,044)	(868)	(674)	(468)	(303)	
9	Industrial	(1,067)	(1,074)	(1,332)	(1,526)	(1,504)	(1,474)	(1,271)	(1,191)	(1,218)	(1,064)	(997)	(895)	(727)	(538)	(340)	(181)	
10	Total SC	(\$3,681)	(\$3,807)	(\$4,759)	(\$5,474)	(\$5,385)	(\$5,264)	(\$4,564)	(\$4,298)	(\$4,389)	(\$3,856)	(\$3,609)	(\$3,245)	(\$2,660)	(\$2,015)	(\$1,334)	(\$786)	
	Projected SC MWH Sales from Exhibit 8																	
11	Residential																	6,592,252
12	General/Lighting																	5,843,466
13	Industrial																	8,001,486
14	Total SC																	20,437,204
	SC Environmental Costs (Over)/Under Recovery c/KWH																	
15	Residential																	(0.0046)
16	General/Lighting																	(0.0052)
17	Industrial																	(0.0023)

ACTUAL AND ESTIMATED ENVIRONMENTAL COST AND REVENUES FOR JUNE 2009 - SEPTEMBER 2010 - RESIDENTIAL
\$000

Line No.		Residential	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
1	Summer 2008 Firm Coincident Peak (CP) KWs	1,601,942																	
2	CP %	39.84%																	
Environmental Costs																			
3	Reagents Expense	Input	\$2,172	\$1,879	\$2,124	\$2,142	\$1,425	\$1,778	\$3,561	\$1,703	\$1,492	\$2,421	\$1,380	\$1,651	\$2,498	\$2,801	\$2,948	\$2,542	
4	Emission Allowance Expense	Input	27	17	160	54	41	26	32	19	38	12	11	32	22	29	32	14	
5	Costs Recovered in I/S Sales	Input	(46)	(15)	(18)	(8)	(27)	(11)	(220)	(214)	(88)	(11)	(11)	(15)	-	-	-	-	
6	Gain on NOx Sales	Input	(1,740)	(1,140)	(4,750)	(3,839)	(824)	(1,060)	(270)	(67)	(1,485)	(17)	(152)	-	-	-	-	(125)	
7	Net Environmental Costs	Sum L3:L6	\$413	\$742	(\$2,484)	(\$1,651)	\$615	\$733	\$3,103	\$1,441	(\$43)	\$2,406	\$1,228	\$1,668	\$2,520	\$2,830	\$2,980	\$2,431	
8	SC % of KWH Sales	Input	26.36%	25.70%	25.68%	25.61%	26.18%	25.81%	25.03%	24.75%	25.06%	25.46%	26.24%	25.97%	26.48%	25.87%	25.98%	26.17%	
9	SC Environmental Costs	L7 * L8	\$109	\$191	(\$638)	(\$423)	\$161	\$189	\$777	\$357	(\$11)	\$612	\$322	\$433	\$667	\$732	\$774	\$636	
10	Residential cost allocated by Firm CP	L9 * L2	\$43	\$76	(\$254)	(\$169)	\$64	\$75	\$310	\$142	(\$4)	\$244	\$128	\$173	\$266	\$292	\$308	\$253	
11	SC Residential KWH Sales	Input	509,409	674,224	647,820	561,612	421,384	390,912	582,644	812,127	668,789	602,267	442,042	395,543	531,809	636,330	656,147	607,402	
12	SC Residential Rate	Input	0.0222	0.0222	0.0222	0.0222	0.0047	0.0047	0.0047	0.0047	0.0047	0.0047	0.0047	0.0047	0.0047	0.0047	0.0047	0.00	
13	SC Environmental Billed	L11 * L12	\$113	\$150	\$144	\$125	\$20	\$18	\$27	\$38	\$31	\$28	\$21	\$19	\$25	\$30	\$31	\$29	
14	SC Environmental Costs (Over)/Under Recovery	L10 - L13	(\$70)	(\$74)	(\$398)	(\$294)	\$44	\$57	\$283	\$104	(\$35)	\$216	\$107	\$154	\$241	\$262	\$277	\$224	
15	Prior Period (Over)/Under Recovery *	Input	(\$1,401)																
Economic Purchase Adjustment per Docket 2009-3-E *																			
16		Input																	
Cumulative SC Environmental Costs (Over)/Under Recovery																			
17		L14 + L15 + L16 + prev bal	(\$1,471)	(\$1,545)	(\$1,943)	(\$2,237)	(\$2,193)	(\$2,136)	(\$1,853)	(\$1,749)	(\$1,784)	(\$1,568)	(\$1,461)	(\$1,307)	(\$1,066)	(\$804)	(\$527)	(303)	
Projected SC MWH Sales from Exhibit 8 (12ME Sept 2011)																			
18		Input																	6,592,252
SC Environmental Costs (Over)/Under Recovery ¢/KWH																			
19		L17 / L18 * 100																	(0.0046)

* Lines 15 and 16 are an allocation of total based on Firm CP KWs

ACTUAL AND ESTIMATED ENVIRONMENTAL COST AND REVENUES FOR JUNE 2009 - SEPTEMBER 2010 - GENERAL/LIGHTING
\$000

Line No.		General/Lighting												
			Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Estimate	Estimate
1	Summer 2008 Firm Coincident Peak (CP) KWs		1,242,966											
2	CP %		30.91%											
Environmental Costs			June 2009	July 2009	Aug. 2009	Sept. 2009	Oct. 2009	Nov. 2009	Dec. 2009	Jan 2010	April 2010	May 2010	June 2010	Estimate
3	Reagents Expense	Input	\$2,172	\$1,879	\$2,124	\$2,142	\$1,425	\$1,778	\$3,561	\$1,703	\$1,380	\$1,651	\$2,498	\$2,801
4	Emission Allowance Expense	Input	27	17	160	54	41	26	32	19	11	32	22	29
5	Costs Recovered in I/S Sales	Input	(46)	(15)	(18)	(8)	(27)	(11)	(220)	(214)	(11)	(15)	-	-
6	Gain on NOx Sales	Input	(1,740)	(1,140)	(4,750)	(3,839)	(824)	(1,060)	(270)	(67)	(152)	-	-	-
7	Net Environmental Costs	Sum L3:L6	\$413	\$742	(\$2,484)	(\$1,651)	\$615	\$733	\$3,103	\$1,441	\$1,228	\$1,668	\$2,520	\$2,830
8	SC % of KWH Sales	Input	26.36%	25.70%	25.68%	25.61%	26.18%	25.81%	25.03%	24.75%	26.24%	25.97%	26.48%	25.87%
9	SC Environmental Costs	L7 * L8	\$109	\$191	(\$638)	(\$423)	\$161	\$189	\$777	\$357	\$322	\$433	\$667	\$732
10	GS/Lighting cost allocated by Firm CP	L9 * L2	\$34	\$59	(\$197)	(\$131)	\$50	\$58	\$240	\$110	\$100	\$134	\$206	\$226
11	SC Residential KWH Sales	Input	496,351	563,574	539,720	519,502	464,432	412,738	445,710	490,495	458,229	447,038	514,516	545,368
12	SC Residential Rate	Input	0.0184	0.0184	0.0184	0.0184	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058
13	SC Environmental Billed	L11 * L12	\$91	\$104	\$99	\$96	\$27	\$24	\$26	\$28	\$27	\$26	\$30	\$32
SC Environmental Costs														
14	(Over)/Under Recovery	L10 - L13	(\$57)	(\$45)	(\$296)	(\$227)	\$23	\$34	\$214	\$82	\$73	\$108	\$176	\$194
15	Prior Period (Over)/Under Recovery *	Input	(\$1,087)											
Economic Purchase Adjustment														
16	per Docket 2009-3-E *	Input												
Cumulative SC Environmental Costs (Over)/Under Recovery			L14 + L15 + L16 + prev bal											
17	Projected SC MWH Sales from Exhibit 8 (12ME Sept 2011)	Input	(\$1,144)	(\$1,189)	(\$1,485)	(\$1,712)	(\$1,689)	(\$1,655)	(\$1,441)	(\$1,359)	(\$1,152)	(\$1,044)	(\$868)	(\$674)
18	SC Environmental Costs (Over)/Under Recovery c/KWH	L17 / L18 * 100												
19														

* Lines 15 and 16 are an allocation of total based on Firm CP KWs

ACTUAL AND ESTIMATED ENVIRONMENTAL COST AND REVENUES FOR JUNE 2009 - SEPTEMBER 2010 - INDUSTRIAL
\$000

Line No.		Industrial No.	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actua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* Lines 15 and 16 are an allocation of total based on Firm CP KWs

DUKE ENERGY CAROLINAS
SOUTH CAROLINA FUEL CLAUSE
ANNUAL FUEL FILING - Docket 2010-3-E

PROJECTED BILLING PERIOD ENVIRONMENTAL COST FOR OCTOBER 2010 - SEPTEMBER 2011

\$000

[illegible]

PROJECTED BILLING PERIOD FUEL FACTORS BY CUSTOMER CLASS (OCTOBER 2010 - SEPTEMBER 2011)

Line No.	Summary ¢/KWH	SC Base Fuel Factor from Exhibit 6	SC Environmental Factor from Exhibits 7 and 8	Combined Projected Fuel Factor
1	Residential	2.0625	0.0445	2.1070
2	General/Lighting	2.0625	0.0327	2.0952
3	Industrial	2.0625	0.0253	2.0878